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09/658,907	09/11/2000	Kristopher T. Kohl	194-13026-CIP	4415

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EXAMINER
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KRISHNAMURTHY, RAMESH

ART UNIT	PAPER NUMBER
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3753

DATE MAILED: 04/11/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/658,907

Applicant(s)

KOHL ET AL.

Examiner

Ramesh Krishnamurthy

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 11 March 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1 - 20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 - 20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 11 March 2002 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 11.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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This office action is responsive to amendment filed on 03/11/02.

**Claims 1 – 20 are pending.**

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 14 and 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. The preamble of claim 14 is inconsistent with that of the preamble of its parent claim 1, in that Claim 1 pertains to a single wellbore whereas claim 14 appears to pertain to a plurality of wellbores, rendering the claim indefinite.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1, 2, 4 – 8, 10, 14, 16 - 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spivey in view of Merritt, Jr. et al.. and further in view of Hensley.

Spivey discloses a system for a controlled injection of corrosion inhibiting additive to a production well (60), the system comprising a source of additive (13), a pump (30), a flow meter (35, 39) that generates appropriate signals via transmitters (36, 40) to a microprocessor based first controller (53) that controls a solenoid operated valve (46) to ensure a desired amount of additive to be injected into the well (60). The controller (53) needs to be programmed (Col. 4, lines 51 – 55) which presumably involves an operator and thus via suitable programming the system is inherently capable of being manually overridden with previously programmed values.

The patent to Spivey discloses the claimed invention with the exception of (a) having a second controller that remotely controls the first controller to deliver a desired amount of additive into the well and (b) the system controlling a plurality of well bores.

Merritt, Jr. et al. discloses a control system wherein a remote controller (40) controls a first controller (35) to deliver a desired amount of additive into the well. Merritt, Jr. et al. discloses that it is known in the art to set the flow rate of the additive to be within a predetermined range and to adjust the flow rate if the measured flow rates fall outside of the set range (Col. 4, lines 35 – 56). Merritt, Jr. discloses details of controlling a plurality of well bores.

It would have been obvious at the time the invention was made to one of ordinary skill in the art to (a) have added a second controller at a remote location to the system of Spivey to be able to control the first controller from a remote location to deliver a desired amount of additive into the well, and (b) adapt the flow control/delivery system to work with a plurality of wells as recognized by Merritt, Jr. et al.

The turbine flow meter disclosed by Merritt, Jr. et al. is considered to be a positive displacement flow meter. Also, the onsite controller (35) has associated with it, a database management system comprising computer programs and historical performance data (col. 4 in Merritt, Jr. et al.) that could be easily shared with the second controller (40). Thus, the limitation of the database management system being associated with the second controller as recited in claim 8 is merely a design choice over those features disclosed in the combination of Spivey and Merritt, Jr. et al. that provides no new and / or unexpected results nor solves any stated problem.

The system according to Spivey – Merritt, Jr. et al. combination as set forth above discloses the claimed limitations with the exception of supplying the additive such that its concentration in the formation fluid is within the range of 1 ppm to about 10,000 ppm. The patent to Hensley discloses that it is known in the art (see Col. 5, example 1) to use additives that result in an additive concentration in the formation fluid of about 230 ppm (which is well within the range claimed) to achieve desired corrosion inhibition. It would have been obvious to one of ordinary skill in the art at the time the invention was made to supply the additive such that its concentration in the formation fluid is

within the range of 1 ppm to about 10,000 ppm for the purpose of achieving desired corrosion inhibition.

It is also noted that the Spivey – Merritt, Jr. et al. - Hensley combination as set forth above is capable of performing the method recited in claims 16 – 18.

7. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over the Spivey – Merritt, Jr. et al. - Hensley combination as applied to claims 1, 2, 4 – 8, 10, 14, 16 - 18 above, and further in view of Tubel et al..

The system according the combination of Spivey, Merritt, Jr. et al. and Hensley as set forth above, discloses all the claimed features with the exception of having the second remote controller being adapted to communicate with a plurality of computers over a network. The patent to Tubel et al. discloses (Fig. 4) that it is known in the art to employ a host computer ((10, Fig. 4) that is adapted to communicate with a plurality of computers over a network for the purpose of controlling wells located over a plurality of platforms. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in the system according to the combination of Spivey, Merritt, Jr. et al. and Hensley a host computer that is adapted to communicate with a plurality of computers over a network for the purpose of controlling wells located over a plurality of platforms as recognized by Tubel et al..

8. Claims 11, 12, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Spivey – Merritt, Jr. et al. - Hensley combination as applied to claims 1, 2, 4 – 8, 10, 14, 16 - 18 above, and further in view of Hayatdavoudi.

The system according the combination of Spivey, Merritt, Jr. et al. and Hensley as set forth above discloses all the claimed features with the exception of having a sensor measuring a characteristic of the formation fluid and altering the supply of a selected additive in response to the measured characteristic. The patent to Hayatdavoudi discloses that it is known in the art to employ a sensor (38) for the purpose of monitoring the corroding property of the formation fluid and the measured characteristic is used to alter the supply of the additive from the reservoir (56). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in the system according the Spivey-Merritt, Jr. et al. – Hensley combination a sensor for measuring a characteristic of the formation fluid and altering the supply of a selected additive in response to the measured characteristic for the purpose of selectively controlling the injection of the additive as recognized by Hayatdavoudi.

It is also noted that the Spivey – Merritt, Jr. et al. – Hensley - Hayatdavoudi combination as set forth above is capable of performing the method recited in claims 19 and 20.

9. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over the Spivey – Merritt, Jr. et al. – Hensley combination as applied to claims 1, 2, 4 – 8, 10, 14, 16 - 18 above, and further in view of Pearson.

The system according the combination of Spivey, Merritt, Jr. et al. and Hensley as set forth above discloses all the claimed features with the exception of having redundant flow control devices that are controlled by an onsite controller. The patent to

Pearson discloses that it is known in the art to employ redundant flow control devices (36) controlled by an onsite controller (54) for the purpose of obtaining assured supply of additive into the well. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in the system according to the Spivey -Merritt, Jr. et al. - Hensley combination redundant flow control devices for the purpose of obtaining assured supply of the additive into the well as recognized by Pearson.

10. Claims 3 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Spivey – Merritt, Jr. et al. - Hensley combination as applied to claims 1, 2, 4 – 8, 10, 14, 16 - 20 above, and further in view of Johnson et al. (WO 98/57030).

The system according the combination of Spivey, Merritt, Jr. et al. and Hensley as set forth above, discloses all the claimed features with the exception of having injection of additives at pre-determined depths. The published disclosure of Johnson et al. discloses (Fig. 3) that it is known in the art to employ injection of additive at predetermined depths for the purpose of achieving desired properties of the formation fluid. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in the system according to the combination of Spivey, Merritt, Jr. et al. and Hensley, means for injecting the additive at a pre-determined depth for the purpose of achieving desired properties of the formation fluid as recognized by Johnson et al..

It is noted that Johnson et al. discloses (Fig. 6) the injection of additives into a surface processing unit in addition to injection into the wellbore. Such surface treatment

units provide further treatment of the produced fluid such as separation of water in emulsion from oil and gas, etc.

### **Response to Arguments**

11. Applicant's arguments filed 03/1/02 have been fully considered but they are not persuasive.

12. Regarding the argument concerning the flow metering disclosed in Spivey, it is the examiner's position that the flow meter in the combination corresponds to that disclosed by Merritt, Jr. et al. which is a positive displacement flow meter. Additionally, it is the examiner's position that choosing a flow meter from the many choices available that is suitable to the flow rates being measured is within the purview of one of ordinary skill in the art. Applicant's argument concerning the applicability of Merritt, Jr. et al. to the claims of the instant invention, in that the "additive" of the instant invention is not the same as the injected fluid in Merritt, Jr. et al. is unpersuasive. As claimed, an "additive" is merely fluid added to the fluid in a well to enhance production. In a like vein, in Merritt, Jr. et al. fluid at 12 is injected into the well to enhance the production of the fluid from the well. Further, the argument that the reference of Merritt, Jr. et al. is non-analogous is unpersuasive. Just as the device claimed by the applicants adds fluid to the well bore, so too does the device of Merritt, Jr. et al., by adding an additive, as at 12, to the formation fluid. While "flooding" may be mentioned, it is clear that fluid at 12 is added to the wellbore production fluid. Such added fluid clearly treats the wellbore fluid as an additive would. Regarding the TUBEL et al. reference, applicant's arguments are unpersuasive in that clearly Tubel et al. discloses a system adapted to controlling and/or

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monitoring a plurality of wellbores. The teaching of Tubel et al. that is relevant is the use of means for controlling wells from a remote location. Regarding the PEARSON reference, it is the teaching it provides on the use of redundant pumps that is of relevance to the rejection. In regard to the JOHNSON et al. reference, the limitations argued are not present in claim 15. Claim 15 merely recites injecting additives to a plurality of wellbores at predetermined depths. Furthermore, choosing a particular to depth to inject in a given well belonging to plurality of wellbores is clearly dictated by the characteristics of the formation fluid in that wellbore and therefore represents a design choice.

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramesh Krishnamurthy whose telephone number is

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(703) 305 - 5295. The examiner can normally be reached on Monday - Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael P. Buiz, can be reached on (703) 308 - 0871. The fax phone number for the organization where this application or proceeding is assigned is (703) 308 - 7765.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308 - 0861.

Ramesh Krishnamurthy, Ph. D., PE  
Examiner  
Art Unit 3753  
April 10, 2002



  
Michael Powell Buiz  
Supervisory Patent Examiner  
US Patent & Trademark Office

4/11/02